

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings of claims in the application.

Listings of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) A method for making a thin-film magnetic head, comprising a lower core layer comprising a magnetic material and an upper core layer comprising a magnetic material opposing the lower core layer provided with a gap layer therebetween, the method comprising the steps of:

(a) forming the lower core layer by plating;

(b) forming the gap layer directly on the lower core layer, or forming a lower magnetic pole layer on the lower core layer and then the gap layer on the lower magnetic pole layer by plating; and

(c) forming the upper core layer directly on the gap layer or forming an upper magnetic pole layer on the gap layer and then the upper core layer on the upper magnetic pole layer by plating,

wherein the thin-film magnetic head is not annealed, and the gap layer is formed using NiP having a P content in the range of 11 mass percent to 14 mass percent, and

wherein the lower magnetic pole layer and the gap layer are formed by an electrolytic plating process using a pulsed current such that surfaces of the lower magnetic pole and gap layer formed by the plating process are substantially flat, and the gap layer composed of NiP does not exhibit magnetism.

4. (Currently Amended) A method for making a thin-film magnetic head, the thin film magnetic head comprising a lower core layer comprising a magnetic material and

an upper core layer comprising a magnetic material opposing the lower core layer provided with a gap layer therebetween, the method comprising the steps of:

- (a) forming the lower core layer by plating;
 - (b) forming the gap layer directly on the lower core layer, or forming a lower magnetic pole layer on the lower core layer and then the gap layer on the lower magnetic pole layer by plating;
 - (c) forming the upper core layer directly on the gap layer or forming an upper magnetic pole layer on the gap layer and then the upper core layer on the upper magnetic pole layer by plating; and
 - (d) annealing the thin film magnetic head at a temperature of at least 200⁰ C, wherein the gap layer is formed using NiP having a P content in the range of 12.5 mass percent to 14 mass percent , and
- wherein the lower magnetic pole layer and the gap layer are formed by an electrolytic plating process using a pulsed current such that surfaces of the lower magnetic pole and gap layer formed by the plating process are substantially flat, and the gap layer composed of NiP does not exhibit magnetism.

5. (Cancelled)

6. (Cancelled)